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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,457	04/20/2001	Paul F. Struhsaker	WEST14-00022	4833

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EXAMINER

GEORGE, KEITH M

ART UNIT PAPER NUMBER

2663

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,457

Applicant(s)

STRUHSAKER ET AL.

Examiner

Keith M. George

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 5-10 and 15-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. If applicant desires priority under 35 U.S.C. 119 (e) or 35 U.S.C. 120 based upon a previously filed application, specific reference to the earlier filed application must be made in the instant application. **For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.** This should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time

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period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

2. Applicant has claimed the benefit under 35, USC 120 to application serial number 09/713,684 filed November 15, 2000 on the Declaration and Power of Attorney filed 20 April 2001, however applicant has not included the relationship to this application in the first sentence of the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. If applicant desires priority under 35 U.S.C. 120 based upon application serial number 09/713,684, then claims 1-4 and 11-14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Gilbert et al., U.S. Patent 6,016,311, hereinafter Gilbert.

5. If applicant does not desire priority under 35 U.S.C. 120, then claims 1-4 and 11-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gilbert.

6. Referring to claims 1 and 11, Gilbert teaches an adaptive time division duplexing method and apparatus for dynamic bandwidth allocation within a wireless communication system including, as shown in figure 9, a cluster controller (frame allocation controller). The base stations (figure 4, 106), monitor the bandwidth requirements of their respective cells and report results back to the cluster controller (receiving from a modem shelf associated with a base station access requests generated by a group of wireless access devices) and accept updates and commands from the cluster controller thereby changing the uplink/downlink time slot allocations based upon the bandwidth requirements (determining from traffic requirements associated with the access requests a time duration of a longest downlink portion of TDD frames and determines

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a frame allocation of the downlink portion and the uplink portion of TDD frames used to communicate with the wireless access devices) (column 14, lines 1-6).

7. Referring to claims 2 and 12, Gilbert teaches the cluster controller described in reference to claims 1 and 11 above and also teaches the Cluster Controller Analysis (column 16, line 46 - column 17, line 67) that provides greater detail of the calculations performed by the cluster controller. The cluster controller calculates the uplink and downlink requirements from the associated base stations and calculates a bandwidth allocation scheme. It is clear that the bandwidth allocations scheme prevents interference between base stations by allocating time slots based on the bandwidth needs of the channel (column 18, lines 23-28).

8. Referring to claims 3 and 13, Gilbert teaches the cluster controller described in reference to claims 2 and 12 above and also teaches that the cluster controller is responsible for the synchronization, control and management of the base stations (column 13, lines 51-52).

9. Referring to claims 4 and 14, Gilbert teaches the cluster controller described in reference to claims 3 and 13 above and also teaches that in the Cluster Controller Analysis, the cluster controller sums all of the downlink requirements from all associated base stations and then calculates an estimated bandwidth allocation scheme (column 17, lines 5-18).

Allowable Subject Matter

10. Claims 5-10 and 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed 17 March 2004 have been fully considered but they are not persuasive.

12. On page 19 of the Amendment and Response to Office Action, applicant argues that Gilbert contains no mention of identifying the longest "downlink portion" of "TDD frames" used by any device in a communication system. In response, Gilbert has been clearly shown to teach the base stations monitor the bandwidth requirements of their respective cells and report results back to the cluster controller and accept updates and commands from the cluster controller thereby changing the uplink/downlink time slot allocations based upon the bandwidth requirements (column 14, lines 1-6). As Gilbert changes the uplink/downlink time slot allocations based upon the bandwidth requirements, inherently one of the allocations will be longer than all of the other allocations, this longest downlink portion exists regardless of whether or not Gilbert identifies it. The claim limitations, as recited, do not require any response to determining the longest downlink portion, but simply that it is recognized. Since the invention of Gilbert necessarily includes a longest portion, the limitations as recited in the claims are met explicitly, as shown in paragraph 6 above, and inherently as shown in the present paragraph.

13. No further arguments have been provided in response to the rejections of claims 2-4 and 12-14, therefore these rejections are maintained.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

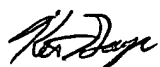
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 703-305-6531. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Keith M. George
27 May 2004



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

5/28/07